Date: Tue, 20 Sep 94 04:30:30 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #279
To: Ham-Homebrew

Ham-Homebrew Digest Tue, 20 Sep 94 Volume 94 : Issue 279

Today's Topics:

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

Date: Sun, 18 Sep 1994 17:06:42 -0400
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!
europa.eng.gtefsd.com!fs7.ece.cmu.edu!casaba.srv.cs.cmu.edu!bb3.andrew.cmu.edu!
andrew.cmu.edu!cs6q+@network.ucsd.edu
Subject: Help communication
To: ham-homebrew@ucsd.edu

Hello

I am in quite a Jam. I am looking for the postal adresses of all mail
order companies dealing in communication equipment/ microphones,
receivers, and transmitters. Also on the detection of microphones,
receivers, and transmitters. Any information of any companies would be
great.

Thank you

Marc Madjaric - Infojunkie - Forum - Pittsburgh PA
cs6q@andrew.cmu.edu

Date: 19 Sep 1994 18:48:35 GMT
From: eng.iac.honeywell.com!gustin@uunet.uu.net
Subject: ICOM IC260 Interface info
To: ham-homebrew@ucsd.edu

Date: 19 Sep 1994 18:53:07 GMT
From: eng.iac.honeywell.com!gustin@uunet.uu.net
Subject: ICOM IC260 Interface Info retry
To: ham-homebrew@ucsd.edu

Date: 20 Sep 1994 06:34:18 GMT
From: ihnp4.ucsd.edu!munnari.oz.au!newsroom.utas.edu.au!news@network.ucsd.edu
Subject: Overtone Crystal Filter
To: ham-homebrew@ucsd.edu

Hi!

Electronics Australia published an SSB receiver with an IF of 8MHZ
using 3 8MHZ computer xtals in a ladder network configuration. All
the capacitors were 100pF. The article said using a ladder network
enabled the xtals to be all resonant at the same frequency.

Can the same idea be used with overtone xtals? For example, I would
like to build a 48MHz IF filter.

Thanks for any info, Ian

Date: 19 Sep 1994 13:20:54 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!agate!howland.reston.ans.net!EU.net!sun4nl!
hacktic!fro@network.ucsd.edu
Subject: QRP mailing address?
To: ham-homebrew@ucsd.edu

Dear fellow hams,

(Sorry for posting this in a not so appropriate place.)

In this newsgroup I read about a QRP mailing list, lately. Unfortunately, the post did not mention a subscribe address. Could someone please be so kind to drop me an email message with how to subscribe? TIA!

73,

Frank, PA3FLV
fro@xs4all.nl

Date: Sat, 17 Sep 94 22:10:56 EDT
From: anagld!wb3ffv!hambbs!Mike.Czuhajewski@uunet.uu.net
Subject: Reuse surface mount parts?
To: ham-homebrew@ucsd.edu

I come across a lot of circuit boards with various types of surface mount devices (SMDs) on them, and was wondering if it is practical to unsolder them and reuse them in some homebrew projects which require SMDs, or if it would be far, far better in every respect to simply bite the bullet and spend a fair sum of money to build up a stock of fresh SMDs from a catalog? When you remove SMDs and subsequently solder them again, are they likely to survive? Or do they tend to sustain a lot of damage, or tend to have vastly reduced lifespans? (This is assuming use of low wattage irons with tiny tips, for both removal and subsequent resoldering. Solder paste and hot air reflow would not be used, since this is for work at home.) I realize there are probably a lot of variables here, but in general is this a reasonable thing to do or should I forget about it?

Date: Sun, 18 Sep 1994 10:52:38 GMT
From: elroy.jpl.nasa.gov!grian!morris@ames.arpa
Subject: Where to find (stable) fixed frequency oscillators?
To: ham-homebrew@ucsd.edu

reykowsk@eemips.tamu.edu (Arne Reykowski) writes:

>Hi,
>We want to built a receiver for an experimental magnetic resonance system.
>Our experiments will be done at several fixed frequencies in the
>range between 40MHz and 360MHz.

>We are looking for stable oscillators with low harmonic distortion
>in this frequency range.
>True, we could buy Xtals and built the oscillators ourselfs, but
>it seems so much easier if we can find a source for integrated oscillators.
>Can anybody name some companies how built fixed frequency oscillators
>in this range?

I don't think that you are really looking at oscillators in the 40mc &
360mc range, but at ones that multiply up to there...

Go over to your local Motorola Service Station (look in the yellow
pages) and ask them about "Channel Elements". These are very stable,
temperature compensated TCXOs that when purchased new were rather
expensive, but second-hand are in the $5 to $40 range.

They came in two flavors: standard (blue and silver cases) and high accuracy
(gold cases). Some of the receive ones had a VCO function for automatic
locking on a slightly off-frequendcy signal, so for simplicitys sake I'd
stick with the elements designed for the translitters. All of them
worked on a standard positive 9v supply at a few milliamps. They plug
into the circuit in question using 3 pins - the pins are standard octal
tube size and an old Potter & Brumfield KRP-series relay can be
butchered for pins. Depending on the frequency that the
transitter was designed to operate on, they are designed for:
"Low band": 30-36, 36-42, 42-50mc ranges
"High Band": 136-150, 150-160, 160-172mc
"UHF": 406-420, 440*-470, 470-512mc

European commercial mid-range radios are 440-512, American are 450-512.

Most of these have either a 6mc, 8mc or 12mc base frequency, with a rich
harmonic output. A simple multiplier chain can get the frequency you
need. Just take a second-hand Channel element and send it to
International Crystal in Oklahoma City and tell them what frequency you
want the final signal to be, and they will cut the crystal, and install
it in the element, compensate it and guarantee it for ever.

International Crystal also has a standard line of oscillator, multiplier
and power amplifier modules that can be compared to a kids Lego Block set.
More expensive, but if you have the $$$ you can get a turnkey signal source.
However each oscillator-multiplier-power amplifier chain is limited to
a little under 10% of the frequency - i.e. 36mc will have all the spot
frequencies within about 3.5mc (1.75 on each side). A frequency at 40
would take another complete chain. A 360mc chain could handle about
347-382. The range can be narrowed bu tuning the chain, but not widened.
By the way, narrower the range, the better the purity and stability.
This option is less engineering and bench work for you - just give
International the frequencies of interest, and let them design the

system, but more expensive.

Lastly, check with the used test equipment vendors such as C & H Surplus in Pasadena, CA (818-796-2628 - ask for Rick Fields). There are other, but I have done business with him (there are two Ricks there - ask for him). A HP 8640B oscillator is an excellent laboratory quality oscillator that will do just what you want, from microvolts to volts (into 50 ohms). It is dead-on stable with a short warmup, and can be battery operated if needed, and a IEEE-488 interface is available.
This option is probably the most expensive of the three I've given you, but the simplest. It is also the most versatile - the osc. will cover from (I think) 10 mhz to over 500mhz directly, with no multipliers or anything.

Please let me know what you end up with.

--
Mike Morris WA6ILQ | All opinions must be my own since nobody pays
PO Box 1130 | me enough to be their mouthpiece...
Arcadia, CA. 91077 |
ICBM: 34.12N, 118.02W | Reply to: morris@grian.cps.altadena.ca.us

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End of Ham-Homebrew Digest V94 #279
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